

Figure 1: Partitioned Host System

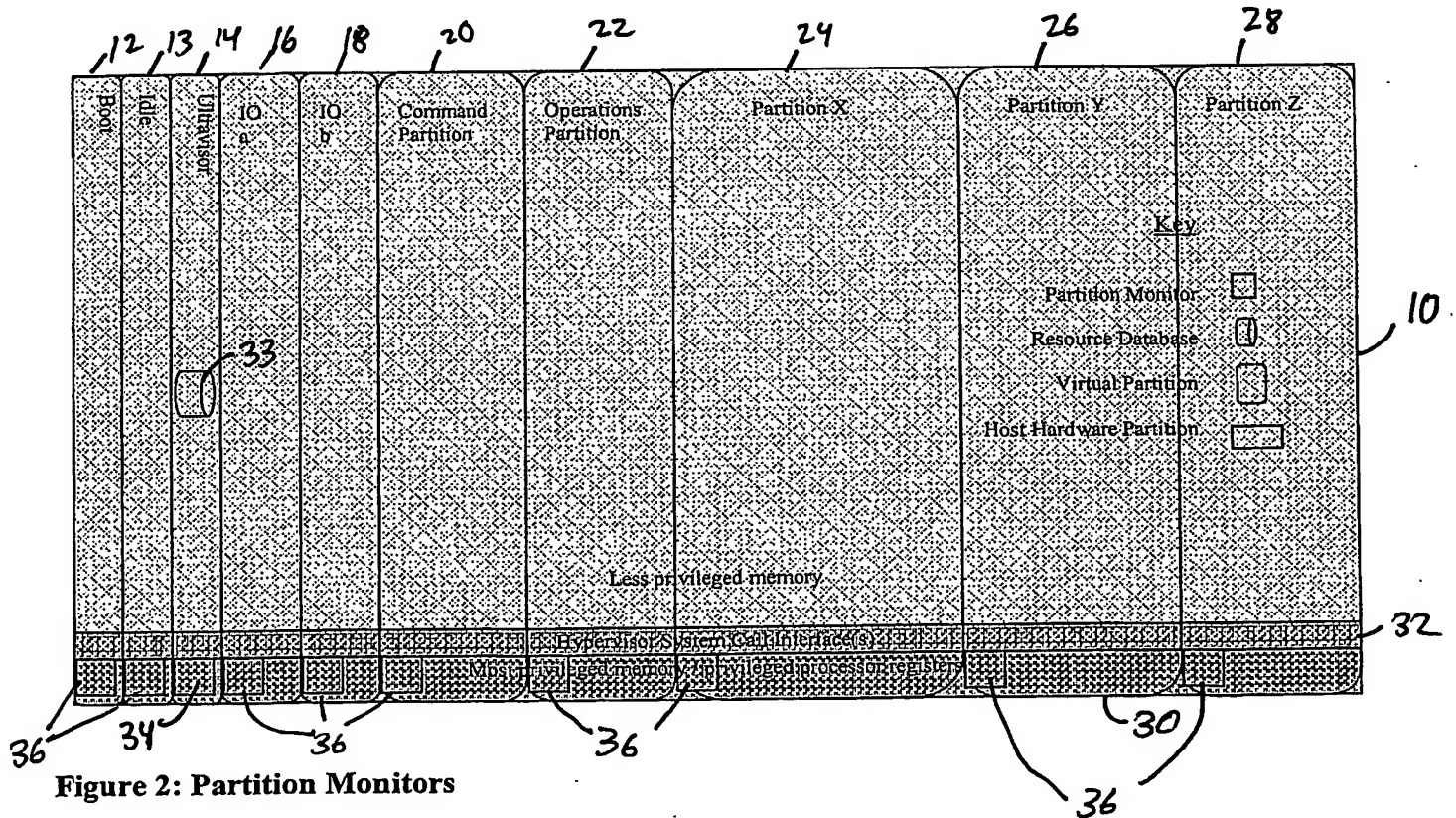


Figure 2: Partition Monitors

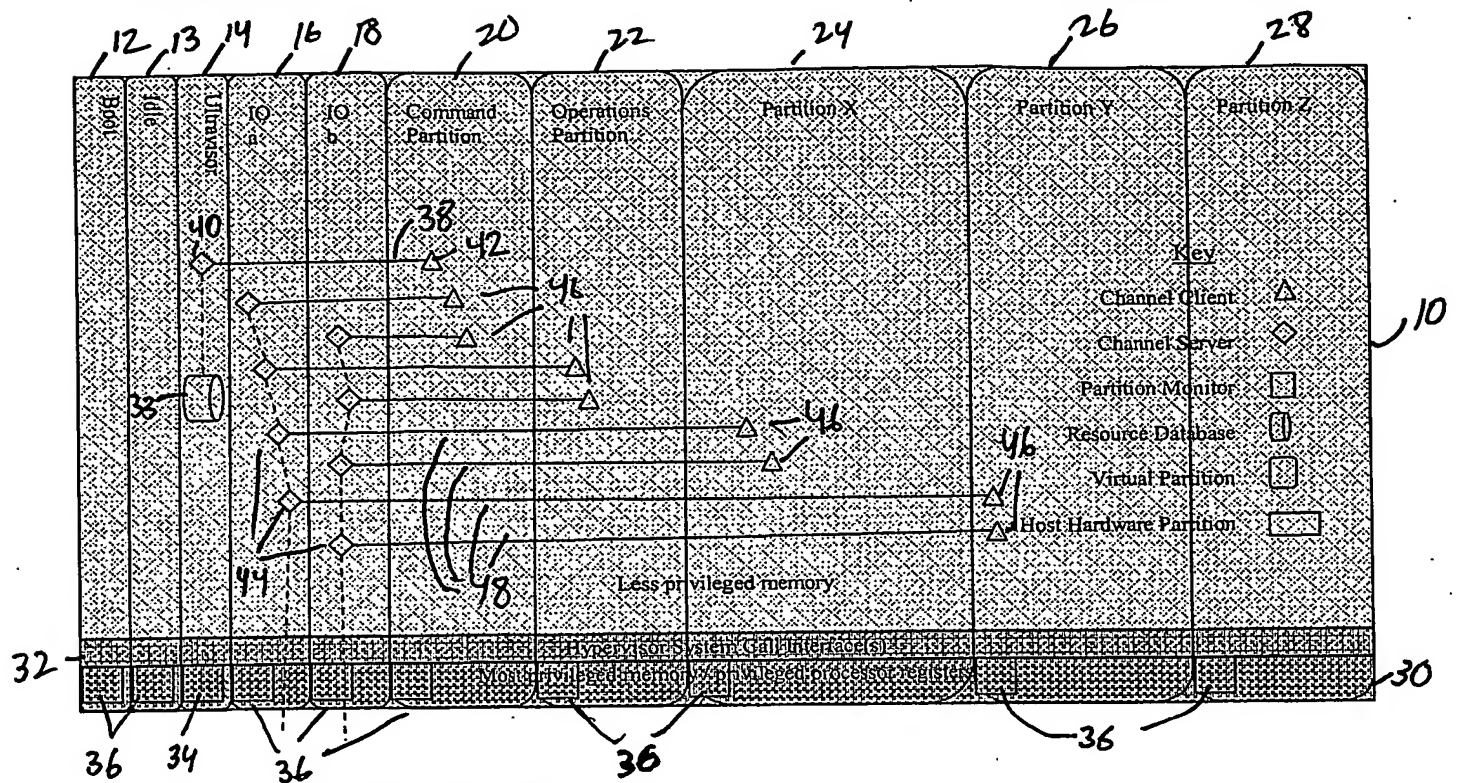


Figure 3: Partition Channels

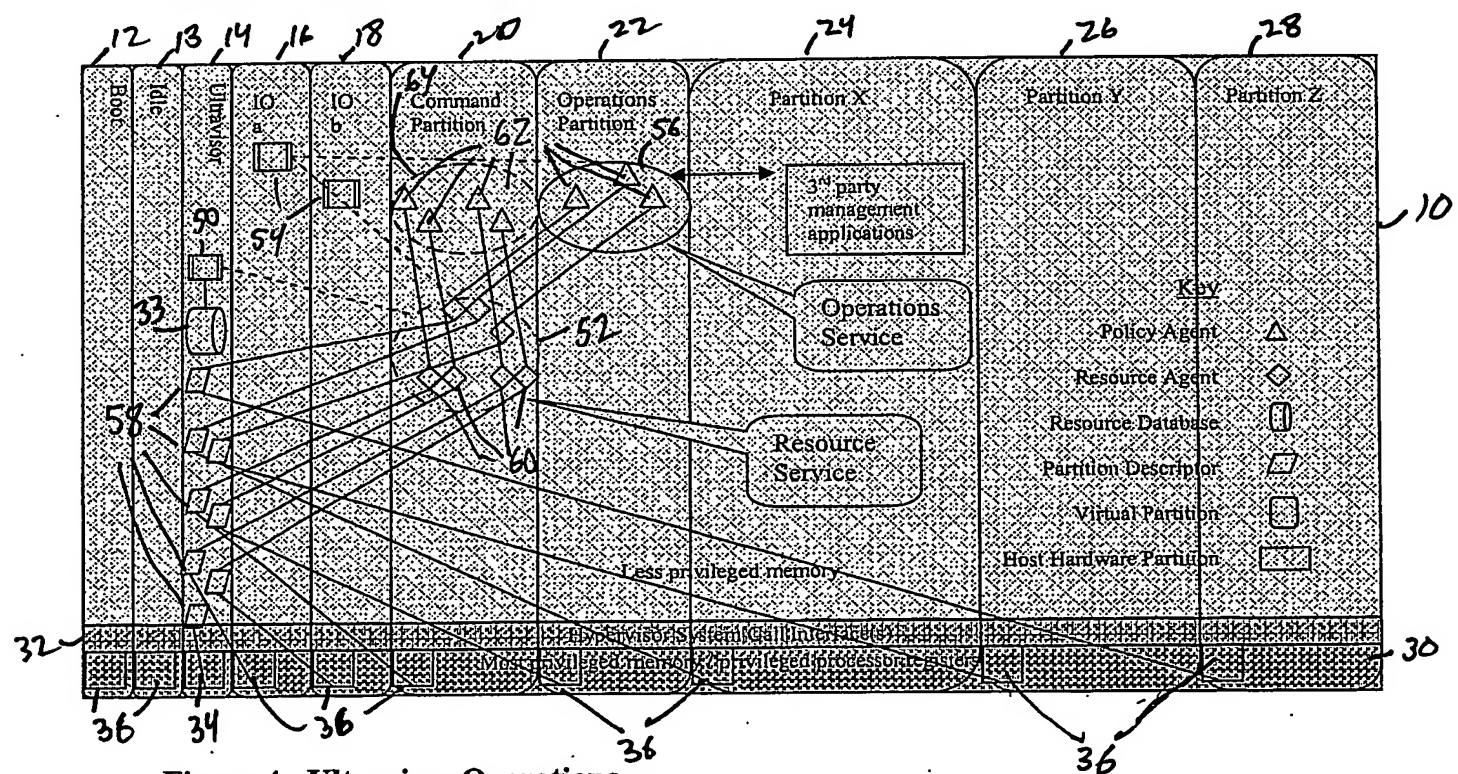


Figure 4: Ultravisor Operations

Overlapped processor throttling – default 4 bit duty width ($1/16 = 6.25\%$)

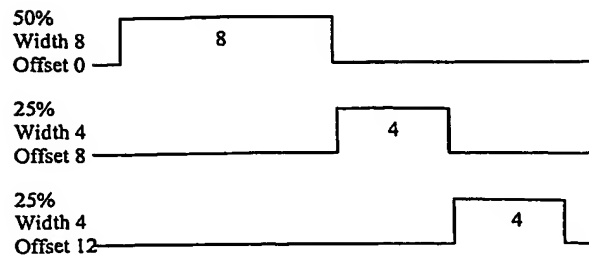


Figure 5 : Processor Sharing

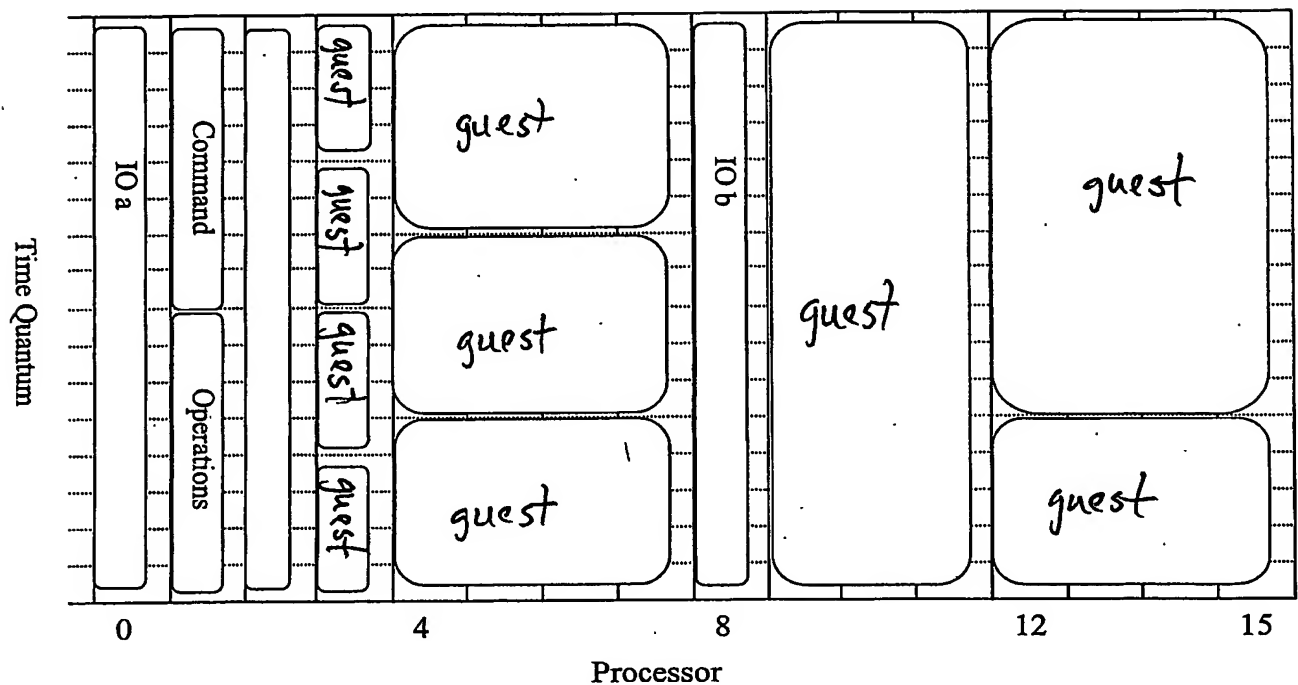


Figure 6 : Processor Schedule

$(2^{10})^n$	SI prefix	SI name	Page Table	Pageantry	IA32/EM32T
1	K	kilo	PKM	PKE	PT/PTE
2	M	mega	PMM	PME	PD/PDE
3	G	giga	PGM	PGE	PDP
4	T	tera	PTM	PTE	PML4
5	P	peta	PPM	PPE	
6	E	Exa	PEM	PEE	
7	Z	zetta	PZM	PZE	
8	Y	yotta	PYM	PYE	

Figure 7 : SI Prefixes for Page Table Hierarchy

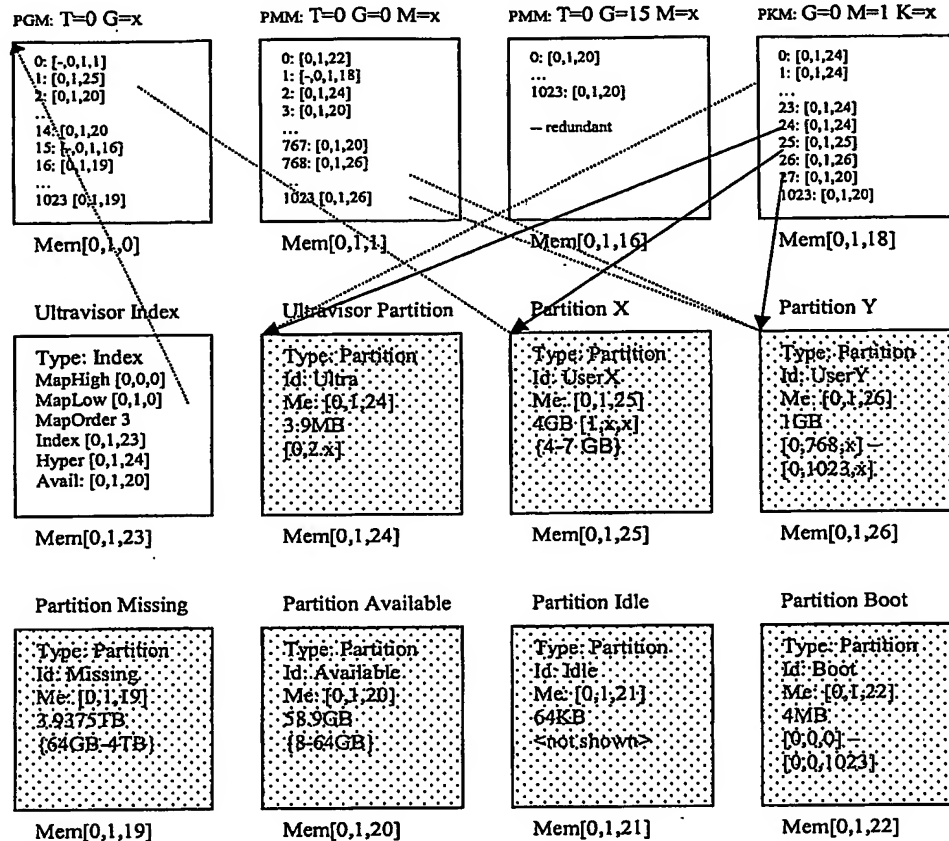
Function GetMemoryOwner [T : 0..1023, G:0..1023, M:0..1023, K:0..1023] of Int32

Memory Index Ref

1	GB	MB	KB
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Partition number (32 bits)

0	S	Node (GB)	MB	KB
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Where Mem[G,M,K] := ((G * 2**10 + M) * 2**10 + K) * 2**10 * 2**2

Figure 8 : Partition Memory Map

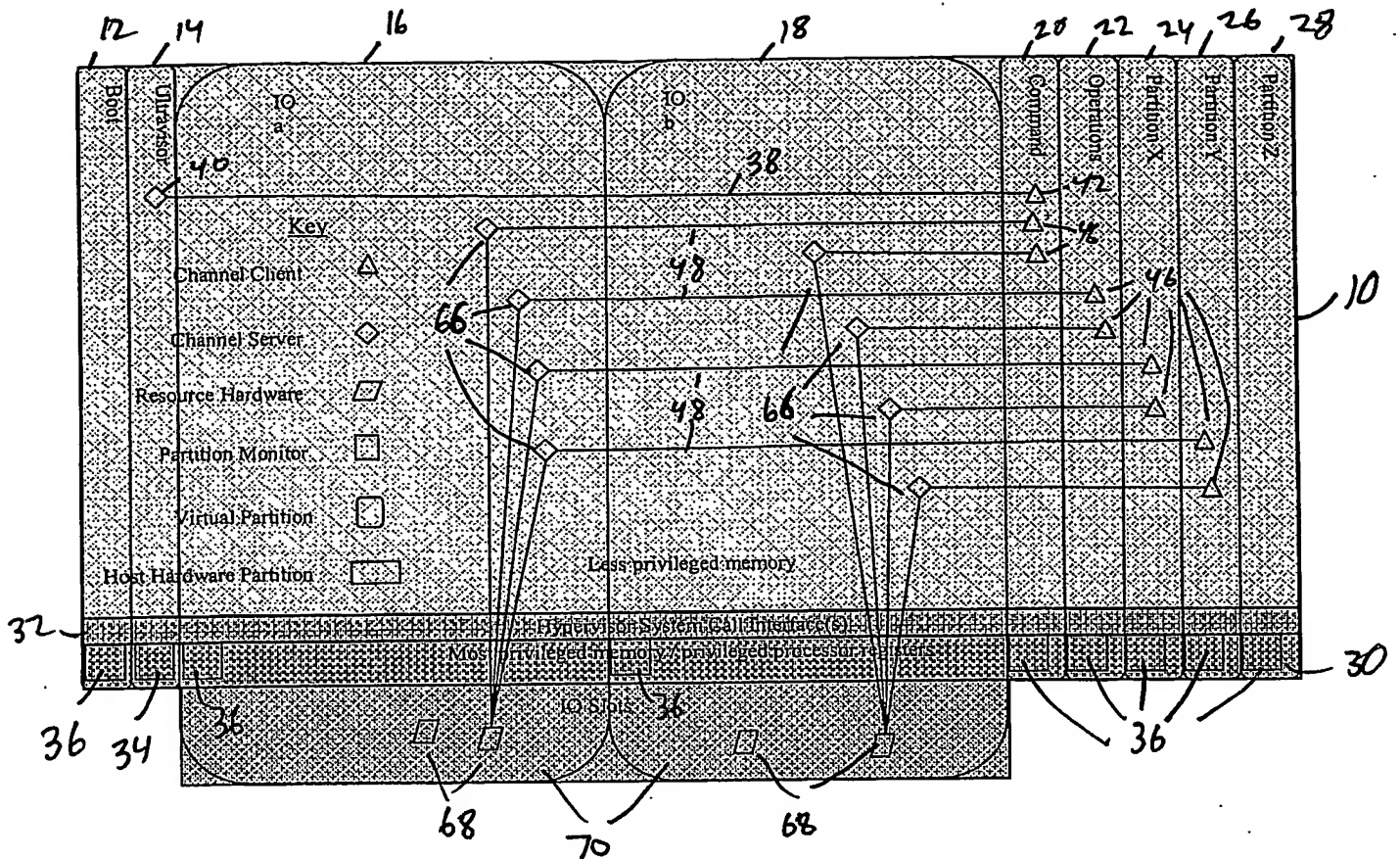


Figure 9: Internal I/O

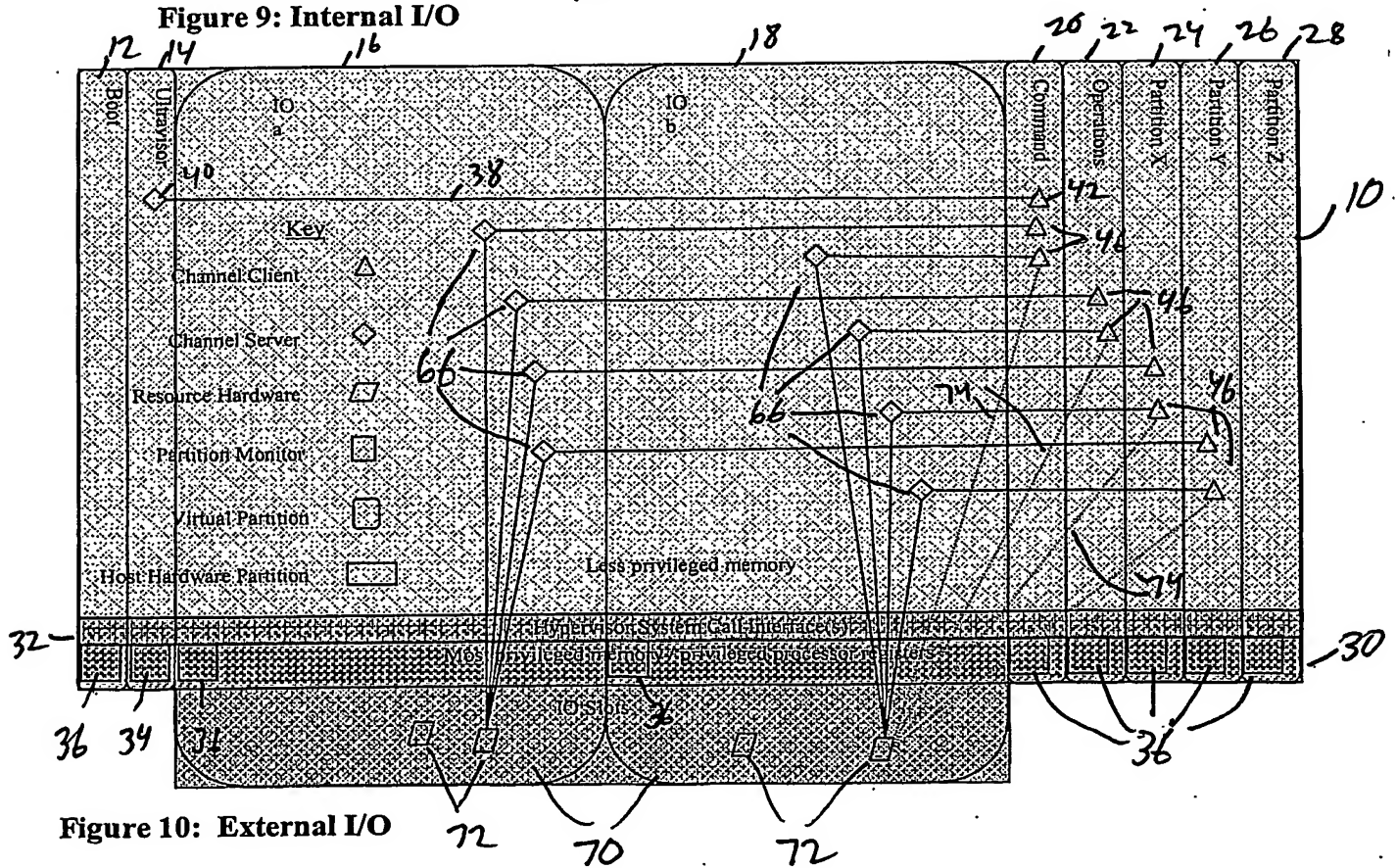


Figure 10: External I/O

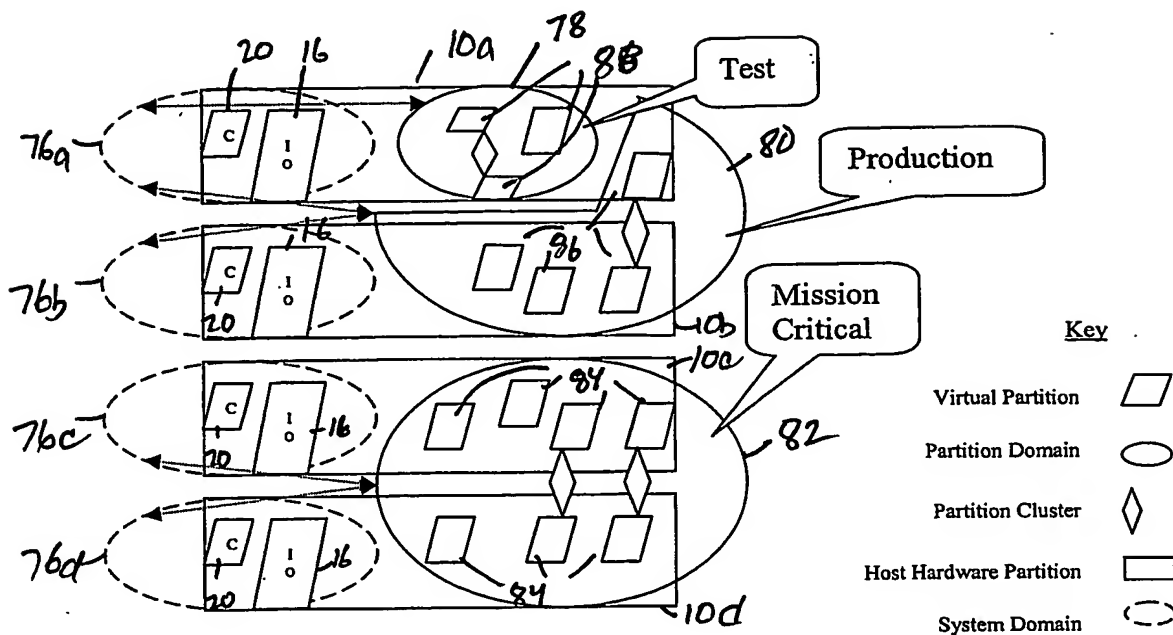


Figure 11 : Ultravisor Domains

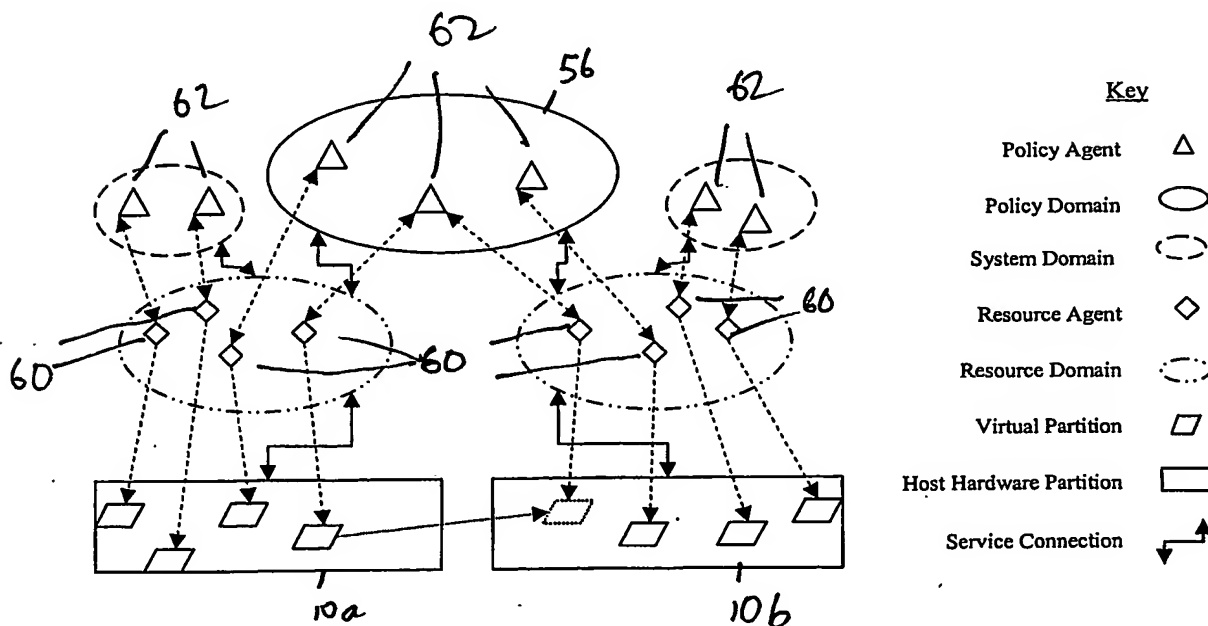


Figure 12 : Ultravisor Partition Agents

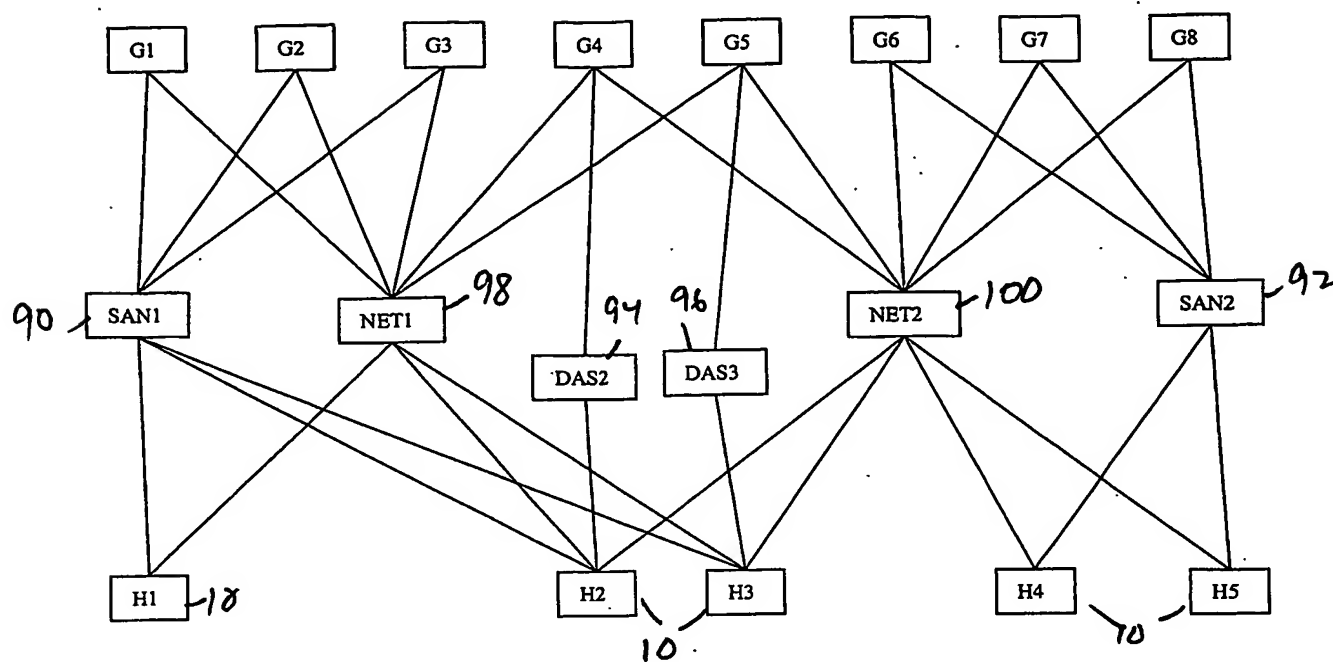


Figure 13 : Virtual Data Center Zones

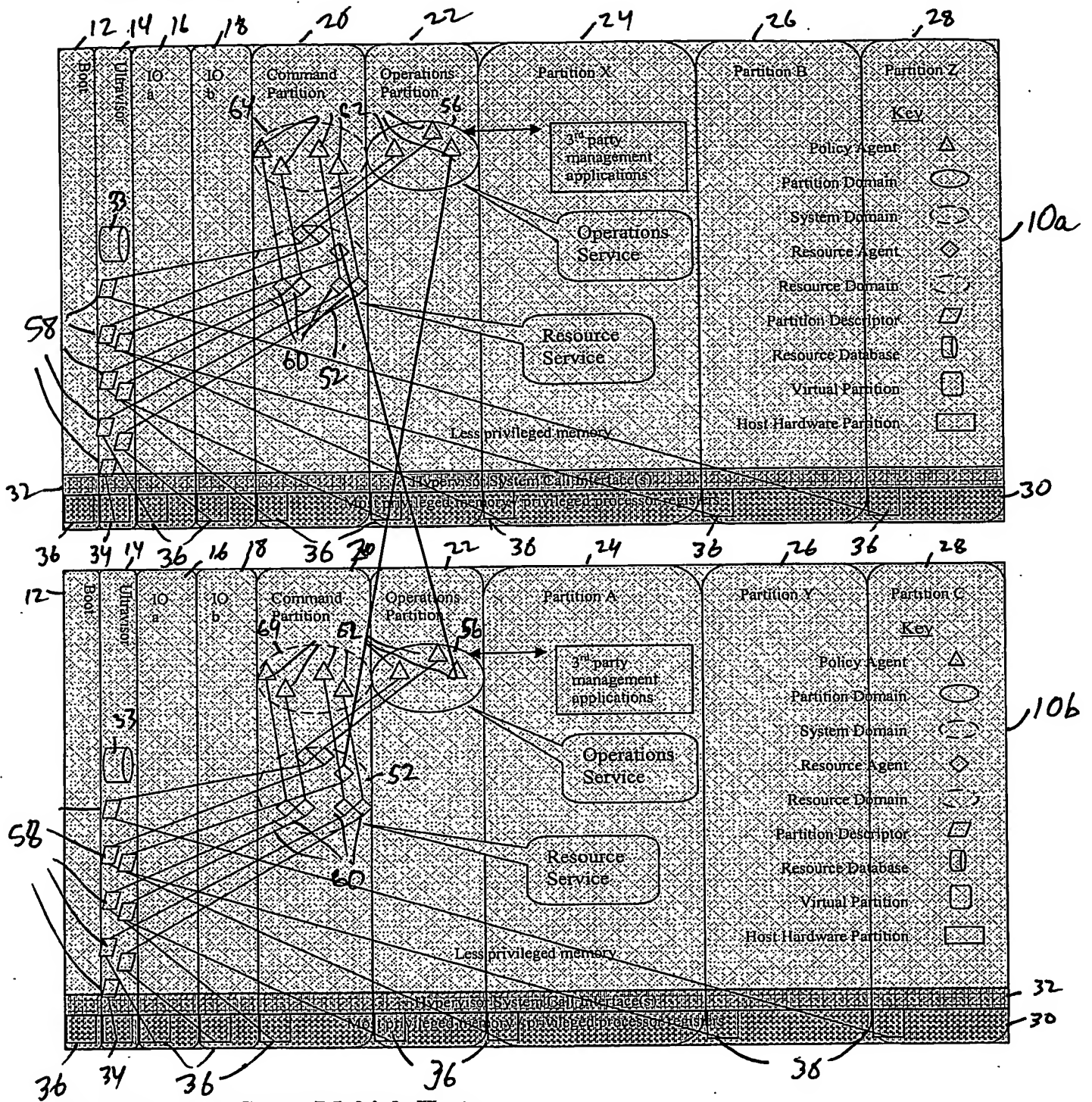


Figure 14 : Data Center/Multiple Hosts

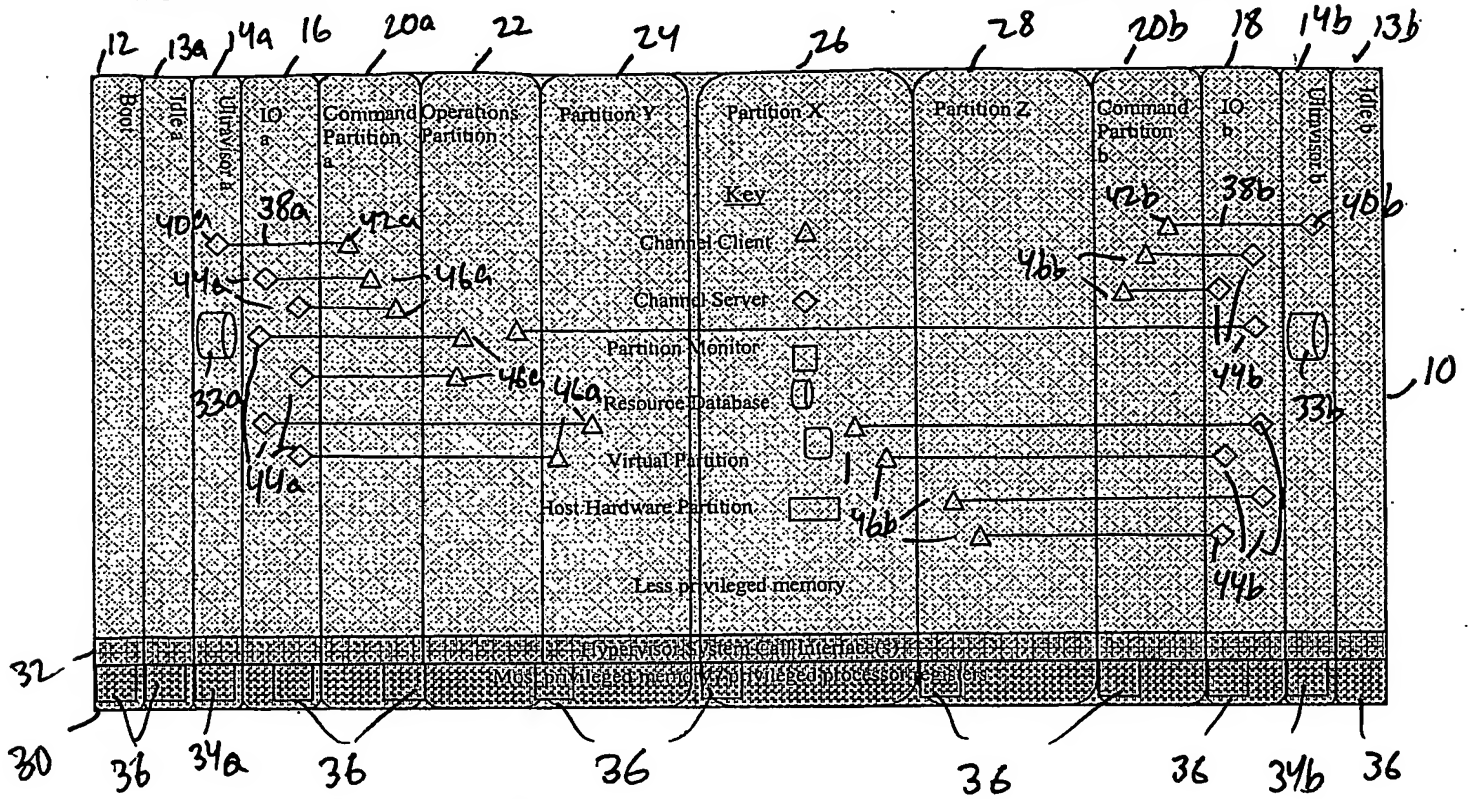


Figure 15: Multiple Ultravisor Resource Partitions